



## DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
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June 24, 2015

Hotspur Technologies, Inc., a Subsidiary of Teleflex Medical, Inc.  
Eric Ankerud, J.D.  
Regulatory and Quality Consultant  
880 Maude Avenue, Suite A  
Mountain View, CA 94043

Re: K143093

Trade/Device Name: 0.018" Arrow<sup>®</sup> GPSCath™ Balloon Dilatation Catheter (150 cm)  
Regulation Number: 21 CFR 870.1250  
Regulation Name: Percutaneous Catheter  
Regulatory Class: Class II  
Product Code: LIT  
Dated: May 7, 2015  
Received: May 12, 2015

Dear Mr. Ankerud:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set

forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Division of Industry and Consumer Education at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address

<http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to

<http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Industry and Consumer Education at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address

<http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,

**Brian D. Pullin -S**

for Bram D. Zuckerman, M.D.  
Director  
Division of Cardiovascular Devices  
Office of Device Evaluation  
Center for Devices and Radiological Health

Enclosure

## Indications for Use

510(k) Number (*if known*)

K143093

Device Name

0.018" Arrow® GPSCath™ Balloon Dilatation Catheter (150 cm)

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Indications for Use (*Describe*)

The 0.018" Arrow® GPSCath™ Balloon Dilatation Catheter (150 cm) is indicated for Percutaneous Transluminal Angioplasty (PTA) in the peripheral vasculature, including iliac, femoral, popliteal, infra-popliteal and renal arteries, and for the treatment of obstructive lesions of native or synthetic arteriovenous dialysis fistulae. This catheter is not for use in coronary arteries.

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Type of Use (*Select one or both, as applicable*)

Prescription Use (Part 21 CFR 801 Subpart D)

Over-The-Counter Use (21 CFR 801 Subpart C)

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**CONTINUE ON A SEPARATE PAGE IF NEEDED.**

This section applies only to requirements of the Paperwork Reduction Act of 1995.

**\*DO NOT SEND YOUR COMPLETED FORM TO THE PRA STAFF EMAIL ADDRESS BELOW.\***

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**Hotspur Technologies, Inc., A Subsidiary of Teleflex Medical, Inc.**  
**Traditional 510(k) Notification**  
**.018" Arrow GPSCath Balloon Dilatation Catheter (150 cm)**

## **510(K) SUMMARY**

### **A. Submitter Information**

**Submitter's Name:** Hotspur Technologies, Inc.  
A Subsidiary of Teleflex Medical, Inc.

**Address:** 880 Maude Avenue, Suite A  
Mountain View, CA 94943

**Telephone:** 978-302-9467

**Fax:** 408-608-1597

**Contact Person:** Eric Ankerud

**Date of Preparation:** October 23, 2014

### **B. Subject Device**

**Trade Name:** 0.018" Arrow® GPSCath™ Balloon Dilatation Catheter (150 cm)

**Common/Usual Name:** Balloon Catheter

**Classification Name:** 21 CFR 870.1250, Catheter, Angioplasty,  
Peripheral, Transluminal/Percutaneous  
Catheter

**Class:** II

**Product Code:** LIT

### **C. Predicate Device Name(s):**

0.014" Arrow® GPSCath™ Balloon Dilatation Catheter (150 cm),  
K140351 and K42300 (Hotspur Technologies)

**D. Indication for Use:**

The .018" Arrow<sup>®</sup> GPSCath<sup>™</sup> Balloon Dilatation Catheter (150 cm) is indicated for Percutaneous Transluminal Angioplasty (PTA) in the peripheral vasculature, including iliac, femoral, popliteal, infra-popliteal and renal arteries, and for the treatment of obstructive lesions of native or synthetic arteriovenous dialysis fistulae. This catheter is not for use in coronary arteries.

**E. Device Description:**

The .018" Arrow GPSCath Balloon Dilatation Catheter (150 cm) is an 0.018" guidewire compatible PTA balloon catheter consisting of a semi-compliant angioplasty balloon fixed at the distal tip and a novel valve technology that allows injection of fluids through the inflation lumen without removal of the guidewire. Two radiopaque markers identify the balloon working length and two radiopaque markers identify the valve to aid in angiographic placement. The proximal portion of the catheter includes an inflation female luer lock hub on the side of the handle and a guidewire female luer lock hub in the proximal end of the handle.

Balloon inflation function is achieved using an angioplasty balloon mounted to the catheter shaft like a typical PTA balloon catheter. The fluid injection function is achieved through a valve at the proximal end of the balloon that is controlled through the device handle.

**F. Predicate Device(s) Reference:**

The .018" Arrow GPSCath Balloon Dilatation Catheter (150 cm) was shown to be substantially equivalent in intended use, principle of operation, and technological characteristics to the previously cleared device: .014" Arrow<sup>®</sup> GPSCath<sup>™</sup> Balloon Dilatation Catheter (150 cm), (K140351 with a subsequent labeling change per K142300).

**G. Performance Data:**

*In vitro* preclinical tests were performed to verify and validate the substantial equivalence of the 0.018" Arrow GPSCath Balloon Dilatation Catheter (150 cm) to the predicate device. Functional testing of the .018" Arrow GPSCath Balloon Dilatation Catheter (150 cm) was performed in accordance with the FDA's Guidance for PTCA Catheters and included passing data for the following tests conducted per documented procedures:

- Visual Testing was performed to ensure that the product has not been damaged through sterilization cycle and packing testing and that the handle markings are legible.
- Dimensional Testing was performed to ensure that the product meets all

dimensional performance attributes post the validated EtO sterilization cycle exposure.

- Performance Testing was conducted to ensure that the product passes all functional destructive testing post the validated EtO sterilization cycle exposure.
- Simulated Use Testing was performed in an anatomically relevant model to ensure that the product performs and meets functional attributes.

The proposed .018" Arrow GPSCath Balloon Dilatation Catheter (150 cm) and the predicate .014" Arrow GPSCath Balloon Dilatation Catheter (150 cm) are both balloon angioplasty catheters with equivalent operating principles and intended use. Due to similarities in materials and shared components of the proposed device to the predicate device, certain tests were not repeated.

Packaging testing performed to ensure that the product packaging can withstand the effects of transit and environmental conditions and still remain intact and sterile were not repeated since the predicate and proposed devices share identical packaging components.

Biocompatibility testing of the .018" Arrow GPSCath Balloon Dilatation Catheter (150 cm) was completed per the requirements of ISO 10993-1, *Biological Evaluation of Medical Devices*.

The .018" Arrow GPSCath Balloon Dilatation Catheter (150 cm) is a single use device that is supplied sterile. The sterilization validation performed on the predicate device, the .014" Arrow GPSCath Balloon Dilatation Catheter (150 cm) is applicable to the proposed device, the .018" Arrow GPSCath Balloon Dilatation Catheter (150 cm) due the similarity in design, materials, and construction. The sterilization validation performed demonstrated that the device is able to be EtO sterilized to achieve a sterility assurance level (SAL) of  $1 \times 10^{-6}$ . See Section 11.0 of this submission for additional detail.

#### **H. Basis for Determination of Substantial Equivalence:**

Upon reviewing the safety and efficacy information provided in this submission and comparing intended use, principle of operation, and overall technological characteristics, the .018" Arrow GPSCath Balloon Dilatation Catheter (150 cm) is determined to be substantially equivalent to an existing legally marketed device.